



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,224	01/18/2001	Frank J. Fabin	56115USA5A.002	7388

7590 09/19/2002

Michaele A. Hakamaki  
Office of Intellectual Property Counsel  
3M Innovative Properties Company  
P.O. Box 33427  
St. Paul, MN 55133-3427

EXAMINER

WEISS JR, JOSEPH FRANCIS

ART UNIT

PAPER NUMBER

3761

DATE MAILED: 09/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. <b>09/765,224</b>	Applicant(s) <b>Fabin</b>
	Examiner <b>Joseph Weiss</b>	Art Unit <b>3761</b>
		
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>		
<b>Period for Reply</b> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.		
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).		
<b>Status</b>		
1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>Jan 18, 2001</u>		
2a) <input type="checkbox"/> This action is FINAL.      2b) <input checked="" type="checkbox"/> This action is non-final.		
3) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11; 453 O.G. 213.		
<b>Disposition of Claims</b>		
4) <input checked="" type="checkbox"/> Claim(s) <u>1-41</u> is/are pending in the application.		
4a) Of the above, claim(s) _____ is/are withdrawn from consideration.		
5) <input type="checkbox"/> Claim(s) _____ is/are allowed.		
6) <input checked="" type="checkbox"/> Claim(s) <u>1-41</u> is/are rejected.		
7) <input type="checkbox"/> Claim(s) _____ is/are objected to.		
8) <input type="checkbox"/> Claims _____ are subject to restriction and/or election requirement.		
<b>Application Papers</b>		
9) <input type="checkbox"/> The specification is objected to by the Examiner.		
10) <input checked="" type="checkbox"/> The drawing(s) filed on <u>Jan 18, 2001</u> is/are a) <input type="checkbox"/> accepted or b) <input checked="" type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
11) <input type="checkbox"/> The proposed drawing correction filed on _____ is: a) <input type="checkbox"/> approved b) <input type="checkbox"/> disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.		
12) <input type="checkbox"/> The oath or declaration is objected to by the Examiner.		
<b>Priority under 35 U.S.C. §§ 119 and 120</b>		
13) <input type="checkbox"/> Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) <input type="checkbox"/> All b) <input type="checkbox"/> Some* c) <input type="checkbox"/> None of: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).		
*See the attached detailed Office action for a list of the certified copies not received.		
14) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e). a) <input type="checkbox"/> The translation of the foreign language provisional application has been received.		
15) <input type="checkbox"/> Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.		
<b>Attachment(s)</b>		
1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)		
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)		
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). <u>2 &amp; 3</u>		
4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____		
5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)		
6) <input type="checkbox"/> Other: _____		

Art Unit: 3761

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the opposite thread members, an elastic band at least partially extending along an opposed rim portion and a latch means of claim 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the microstructure sealing surfaces of claims 16 & 34 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the cooperative mechanical

Art Unit: 3761

engagement surfaces of claims 17 & 35 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the full body respiratory suit of claim 40 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 15 recites the limitation "the opposed rim portions" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3761

8. Claim 16 recites the limitation "the opposed rim portions" in line 1. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 17 recites the limitation "the opposed rim portions" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-8, 10-15, 17-33, 35-39 & 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tischer et al (US 6328031) in view of Corsini (US 6266828)

In regards to claim 12, Tischer discloses a hood respirator (Fig 3, 22) comprising a shroud (24) having a head covering portion (30) and a lens opening therein (opening best seen in blow out figs 13 & 21) and a body sealing portion (see fig 3, that portion of shroud 1 that encircles a user's neck, shoulders and upper torso elements 32-44) configured for forming a seal with a wearer's neck, shoulders or other body area, a facial lens (54) having a perimeter sealing edge (that portion of the lens that engages frame 60/cushion 58) extending around the lens, a disengageable coupling between the lens opening of the shroud and the perimeter sealing edge of the lens (62), the coupling having a first engaged condition wherein the lens is sealably affixed to

Art Unit: 3761

the shroud (see fig 3) and a second released condition wherein the lens is removable from the shroud (see blow out figs), but does not explicitly disclose a breathing gas delivery conduit fluidly coupled to the hood. However, Corsini disclose such (element 5). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Corsini and used them with the device of Tischer. The suggestion/motivation for doing so would have been to because Tischer discloses the interconnection of the lens with a breathing apparatus and provides structure equal to that of Corsini in the lens for conduit coupling of the hood to a breathing apparatus (See Tischer's channel 57, see also col. 4 lines 15-20). Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 13, Tischer discloses the perimeter sealing edge as an integral, peripheral edge of the lens.(see figs 4-11)

In regards to claim 14, Tischer discloses the use of a lens frame (60) disposed around the facial lens, wherein the perimeter sealing edge is a peripheral edge of the lens frame. (See figs 4-11)

Art Unit: 3761

In regards to claim 15, Tisher discloses the use of opposite threaded members (See fig 8, 86 and those elements that oppose 86)

In regards to claim 17, Tischer discloses the use of opposed rim portions that includes cooperative mechanical engagement surfaces (See 72 & 74).

In regards to claim 18, Tischer discloses a full face piece seal (58) connected to the lens wherein the shroud is super-positioned over the full face piece seal through the disengagable coupling between the lens opening of the shroud and the perimeter sealing edge extending around the lens.

In regards to claim 19, the reference noted above substantially disclose the claimed invention except for the breathable gas delivery conduit communicating fluidly with the hood via the shroud, i.e. a reversal/rearrangement of known parts from what is set forth by the prior art applied.

It is noted that applicant's specification does not set forth this reversal/rearrangement of known parts to facilitate the same purpose, as unexpectedly providing any new result or unexpectedly solving any new problem in the art over the prior art.

Accordingly, the examiner considers the selection of this reversal/rearrangement of known parts to achieve the same purpose/result to be a mere obvious matter of design choice and as such does not patently distinguish the claims over the prior art, barring a convincing showing of evidence to the contrary.

Art Unit: 3761

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 20, Tischer discloses the delivery conduit communicating fluidly with the hood through the lens.

In regards to claim 21, Tischer discloses a hood respirator (Fig 3, 22) comprising a shroud (24) having a head covering portion (30) and a front opening therein (opening best seen in blow out figs 13 & 21) and a body sealing portion (see fig 3, that portion of shroud 1 that encircles a user's neck, shoulders and upper torso elements 32-44) configured for forming a seal with a wearer's neck, shoulders or other body area, a respiratory mask (26) having a perimeter sealing edge (that portion of the lens that engages frame 60/cushion 58) around the mask, a disengageable coupling between the lens opening of the shroud and the perimeter sealing edge of the lens (62), the coupling having a first engaged condition wherein the mask is sealably affixed to the shroud (see fig 3) and a second released condition wherein the mask is removable from the shroud (see blow out figs), but does not explicitly disclose the mask as having a breathing gas delivery conduit. However, Corsini disclose such (element 5). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Corsini and used them with the device of Tischer. The

Art Unit: 3761

suggestion/motivation for doing so would have been to because Tischer discloses the interconnection of the mask with a breathing apparatus and provides structure equal to that of Corsini in the mask for conduit coupling of the mask to a breathing apparatus (See Tischer's channel 57, see also col. 4 lines 15-20). Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 22, the suggested device discloses the breathable gas delivery conduit as connected to the mask through the lens. (See figs of Corsini)

In regards to claim 23, Tischer discloses a full face piece seal (58) connected to the lens wherein the shroud is super-positioned over the full face piece seal through the disengagable coupling between the lens opening of the shroud and the perimeter sealing edge extending around the lens.

In regards to claim 24, Tischer discloses the full face piece seal as being detachable from the respiratory mask (see any illustration of element 58's interface with the mask).

In regards to claim 25, Tischer discloses the mask having a harness attached to the respiratory mask, the harness adapted for securing the respiratory mask over a human face (see 28 or 174 of Tischer)

Art Unit: 3761

In regards to claim 26, Tischer discloses the respiratory mask as including a nose cup (See unnumbered nose-cup in Fig 12-13 & 21 of Tischer)

In regards to claim 27, Tischer discloses the nose cup as being detachable from the mask  
(Note fig 3 which illustrates no nose cup verses figs 12-13 & 21 which disclose a nose-cup)

In regards to claim 28, Tischer discloses a fastener attached to the hood (162) which is suitable for securing the nose cup over a human nose or mouth and capable of being tightened or loosened from the outside of the hood.

In regards to claim 29, Tischer discloses a kit comprising a plurality of body seals, that comprise at least a first type body seal (facial seal 58/123) and a second type body seal (hood-shroud 24, points of engagement of the hood with a user, see fig 3, that portion of shroud 1 that encircles a user's neck, shoulders and upper torso elements 32-44), each having a lens opening defined therein (See figs 13 & 21), a facial lens (54) having a perimeter sealing edge (that portion of the lens that engages frame 60/cushion 58) extending around the lens, a disengageable coupling between the lens opening of the shroud and the perimeter sealing edge of the lens (62), the coupling having a first engaged condition wherein the lens is sealably affixed to the shroud (see fig 3) and a second released condition wherein the lens is removable from the shroud (see blow out figs 13 & 21), but does not explicitly disclose the kit as having a breathing gas delivery conduit fluidly coupled to each of the body seals or the lens. However, Corsini disclose such (element 5). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been

Art Unit: 3761

obvious to one of ordinary skill in the art to have taken the features of Corsini and used them with the device of Tischer. The suggestion/motivation for doing so would have been to because Tischer discloses the interconnection of the mask with a breathing apparatus and provides structure equal to that of Corsini in the mask for conduit coupling of the mask to a breathing apparatus (See Tischer's channel 57, see also col. 4 lines 15-20). Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 30, the suggested kit discloses the first and second types of body seals being a full face piece seal (58/123) and a respiratory hood. (22/113)

In regards to claim 31, the suggested kit discloses the first type of body seal being a full face piece (58/123) capable of forming a seal with a human face.

In regards to claim 32, the suggested kit discloses the second body seal being of the type that includes being a respiratory hood. (hood-shroud 24, points of engagement of the hood with a user, see fig 3, that portion of shroud 1 that encircles a user's neck, shoulders and upper torso elements 32-44)

In regards to claim 33, the suggested kit discloses the use of a coupling (62) adapted to urge opposed rim portions of the perimeter sealing edge on the lens and the lens opening together.

Art Unit: 3761

In regards to claim 35, the suggested kit discloses the opposed rim portions to include cooperative mechanical engagement surfaces (72 & 74)

In regards to claim 36, the suggested kit discloses the breathable gas delivery conduit as being configured for fluidic communication with each type of body seal.

In regards to claim 37, the suggested kit discloses the breathable gas conduit as being configured for fluidic communication with the lens (see any fig of Corsini and figs 13 & 21 of Tischer).

In regards to claim 38, Tischer discloses at least one hood (24/113) having a mask opening defined therein (See blowout figs 13 & 21), at least one respiratory mask (26) having a facial lens (54) a full face piece seal (58/123) coupled with the lens (see e.g. figs 4-11) and a perimeter sealing edge extending around the mask (again see figs 4-11, note the interface between the edge of the mask with the facial seal 58), wherein the mask is capable of being selectively removably coupled with the hood along the perimeter sealing edge of the mask and the mask opening on the hood so that, when so coupled, the hood is super-positioned over the full face piece seal and a seal is defined between the hood and the mask (against note figs 4-11 which discloses this arrangement), but does not explicitly disclose the kit as having a breathing gas delivery conduit fluidly coupled to each of the body seals or the lens. However, Corsini disclose such (element 5). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Corsini and used them with

Art Unit: 3761

the device of Tischer. The suggestion/motivation for doing so would have been to because Tischer discloses the interconnection of the mask with a breathing apparatus and provides structure equal to that of Corsini in the mask for conduit coupling of the mask to a breathing apparatus (See Tischer's channel 57, see also col. 4 lines 15-20). Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

In regards to claim 39, the suggested kit discloses the face piece seal as being removable from the mask. (See figs 4-11, note that the separable frame facilitates integration/separation of the seal to the mask 26)

In regards to claim 41, the suggested kit discloses the breathable gas delivery conduit as being configured for fluid communication with the mask through the lens (see any fig of Cosini or elements 57/118 of Tischer)

In regards to method claims 1-8 & 10-11, one of ordinary skill in the art would appreciate that the method steps claimed in the instant application would naturally flow from the device disclosed in the prior art as noted above and therefore are rejected herein above with respect to claims 12-41.

Art Unit: 3761

12. Claims 9, 16 & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tischer & Corsini as applied to claims 4, 12 & 33 above, and further in view of Reeves et al (US 5508084).

The suggested device substantially discloses the instant application's claimed invention, but does not explicitly disclose the use of a repositionable microstructure adhesion interfaces for connecting the rim portions. However, Reeves disclose such (note the abstract and summary of the invention). The references are analogous since they are from the same problem solving area, the repositionable interconnection of element of a device). At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Reeves and used them with the suggested device. The suggestion/motivation for doing so would have been because the suggested device discloses the use of one species of repositionable interface of elements (note elements 72/74 hook & loop repositioning interface), therefore one of ordinary skill in the art would consider such to be an obvious interchangeable equivalent. Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

Art Unit: 3761

In regards to method claim 9, one of ordinary skill in the art would appreciate that the method steps claimed in the instant application would naturally flow from the device disclosed in the prior art as noted above and therefore are rejected herein above with respect to claims 16 & 34.

13. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tischer & Corsini as applied to claim 38 above, and further in view of Motsinger (US 2881758).

The suggested device substantially discloses the instant application's claimed invention, but does not explicitly disclose the use of a full body suit with the respiratory mask/hood ensemble. However, Motsinger disclose such (See any fig). The references are analogous since they are from the same field of endeavor, the respiratory arts. At the time the instant application's invention was made, it would have been obvious to one of ordinary skill in the art to have taken the features of Motsinger and used them with the suggested device. The suggestion/motivation for doing so would have been to protect the user's entire body from chem/bio hazards. Therefore it would have been obvious to combine the references to obtain the instant application's claimed invention.

Furthermore, such a feature is old and well known in the art, and one of skill in the art would consider such to amount to a matter of mere obvious and routine choice of design, rather than constitute a patently distinct inventive step, barring a convincing showing of evidence to the contrary.

Art Unit: 3761

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6176239, 6161538, 6006360, 5575278, 5555569, 5181506, 4764990, 4648394, 4573217, 4462119, 2918060, 2882894, 2529106, 1251657, D261073, H1360, H1023 & H863

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph F. Weiss, Jr., whose telephone number is (703) 305-0323. The Examiner can normally be reached from Monday-Friday from 8:30 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Aaron Lewis, can be reached at telephone number (703) 308-0716. The official fax number for this group is (703) 305-3590 or x3591.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0858.



September 16, 2002



Aaron J. Lewis  
Primary Examiner